

AMENDMENTS TO THE CLAIMS:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

LISTING OF CLAIMS:

1 to 29. (Canceled).

30. (Currently Amended) A method of transmitting signaling information between a transmitting station and a receiving station, comprising the step of:

transmitting a first message with the signaling information from the transmitting station to the receiving station, the first message including information regarding whether data to be sent is processed in ~~one of the transmitting station and~~ an additional transmitting station, the additional transmitting station being successively assigned to the receiving station to increase reception quality of the data to be sent at the receiving station, in accordance with measures relating to a transmission channel between the receiving station and at least one of the transmitting station and the additional transmitting station.

31. (Previously Presented) The method according to claim 30, wherein the transmitting station includes a base station.

32. (Previously Presented) The method according to claim 30, wherein the receiving station includes mobile station.

33. (Previously Presented) The method according to claim 30, wherein the first message includes information regarding whether data to be sent is processed in the one of the transmitting station and the additional transmitting station in accordance with a change of the receiving station from a first radio cell to a second radio cell of a radio network.

34. (Previously Presented) The method according to claim 30, wherein information regarding a type of processing of the data to be sent is transmitted in the transmitting step with the third message from the transmitting station to the receiving station.

35. (Previously Presented) The method according to claim 30, wherein the first message is transmitted in the transmitting step, with regard to a single transmission channel for transmission of the data to be sent.

36. (Previously Presented) The method according to claim 30, wherein the first message is transmitted in the transmitting step with regard to multiple transmission channels

for transmission of the data to be sent when a type of processing in the multiple transmission channels is the same.

37. (Previously Presented) The method according to claim 30, wherein information regarding whether the data to be sent from the one of the transmitting station and the additional transmitting station is emitted by one of a single antenna and multiple antennas is transmitted in the transmitting step with the third message.

38. (Previously Presented) The method according to claim 30, wherein information regarding whether the data to be sent is predistorted in one of the transmitting station and the additional transmitting station is transmitted in the transmitting step with the first message.

39. (Previously Presented) The method according to claim 38, wherein information regarding whether predistortion is performed as a function of an estimated pulse response of at least one time slot transmission channel between the receiving station and one of the transmitting station and the additional transmitting station is transmitted in the transmitting step with the first message.

40. (Previously Presented) The method according to claim 30, further comprising the step of:

transmitting a second message from the receiving station to the transmitting station, the second message including information regarding which types of processing of the data to be sent by the transmitting station are supported by the receiving station to detect the data to be sent, the second message including the signaling information before the first message.

41. (Previously Presented) The method according to claim 40, further comprising the step of:

processing the data to be sent in the transmitting station as a function of the second message in a manner supported by the receiving station for detecting the data to be sent.

42. (Previously Presented) The method according to claim 41, further comprising the step of:

transmitting the processed data to be sent in a transmission channel dedicated only to a connection between the transmitting station and the receiving station.

43. (Previously Presented) The method according to claim 41, wherein the signaling information is transmitted in the transmitting step in a processed form from the transmitting station to the receiving station at an earliest when, in accordance with the second message,

the types of processing supported by the receiving station are known by the transmitting station, the processing step occurring in a manner supported by the receiving station, and when the first message has been transmitted to the receiving station.

44. (Previously Presented) The method according to claim 30, further comprising the step of:

transmitting a third message from the transmitting station to the receiving station, the third message including information regarding which ones of at least one type of processing of the data to be sent are supported by the transmitting station and the signaling information from the transmitting station to the receiving station, the third message transmitted in the third message transmitting step when the first message is transmitted in the first transmitting step.

45. (Previously Presented) The method according to claim 44, wherein the third message is transmitted in the third message transmitting step in a transmission channel accessible to a plurality of receiving stations.

46. (Previously Presented) The method according to claim 30, wherein the signaling information is transmitted in the transmitting step in a processed form at an earliest after transmission of the first message to the receiving station from the one of the transmitting station and the additional transmitting station, and the signaling information is transmitted in a transmission channel accessible to a plurality of receiving stations.

47. (Currently Amended) A receiving station, comprising:
a first evaluation arrangement configured to analyze a first message from a transmitting station to determine whether data to be sent to the receiving station from one of the transmitting station and an additional transmitting station successively assigned to the receiving station has been processed by one of the transmitting station and the additional transmitting station to increase a reception quality in accordance with measures relating to a transmission channel between the receiving station and at least one of the transmitting station and the additional transmitting station;

wherein the first message includes information regarding whether data to be sent is processed by the additional transmitting station.

48. (Previously Presented) The receiving station according to claim 47, wherein the transmitting station includes a base station.

49. (Previously Presented) The receiving station according to claim 47, wherein the first evaluation arrangement is configured to analyze the first message to determine a type of processing that has been used by one of the transmitting station and the additional transmitting station on the data to be sent.

50. (Previously Presented) The receiving station according to claim 44, further comprising a first selection arrangement configured to select, as a function of the first message analyzed by the first evaluation arrangement, a detection arrangement configured to detect the data to be sent by one of the transmitting station and the additional transmitting station.

51. (Previously Presented) The receiving station according to claim 47, further comprising a first message generation arrangement configured to generate a second message as a function of ones of at least one type of processing of data to be sent by the transmitting station that are supported by the receiving station and to transmit the second message to the transmitting station.

52. (Previously Presented) The receiving station according to claim 51, wherein the first evaluation arrangement is configured to analyze a third message from the transmitting station to determine which ones of at least one type of processing of signals to be sent are supported by the transmitting station, and the first evaluation arrangement is configured to check whether the ones of at least one type of processing supported by the transmitting are supported by the receiving station, and the first evaluation arrangement is configured to activate the third message generation arrangement so that at least one type of processing supported by both the transmitting station and the receiving station is indicated in the second message.

53. (Currently Amended) A transmitting station, comprising:
a message generation arrangement configured to generate a first message including information regarding that whether data to be sent is processed in ~~one of the transmitting station and an additional transmitting station,~~ the additional transmitting station being successively assigned to a receiving station to increase a reception quality of the data to be sent at the receiving station in accordance with measures relating to a transmission channel between the receiving station and at least one of the transmitting station and the additional transmitting station, the message generation arrangement configured to transmit the first message to the receiving station.

54. (Previously Presented) The transmitting station according to claim 53, wherein the receiving station includes a mobile station.

55. (Previously Presented) The transmitting station according to claim 53, wherein the message generation arrangement is configured to indicate in the first message a type of processing performed on the data to be sent in one of the transmitting station and the additional transmitting station.

56. (Previously Presented) The transmitting station according to claim 53, wherein the message generation arrangement is configured to generate, before transmission of the first message, a third message including information regarding which ones of at least one type of processing of data to be sent by the transmitting station are supported by the transmitting station, the message generation arrangement configured to transmit the third message to the receiving station.

57. (Previously Presented) The transmitting station according to claim 53, further comprising an evaluation arrangement configured to analyze a second message received from the receiving station to determine which ones of at least one type of processing of signals to be sent are supported by the receiving station, the second evaluation arrangement configured to check whether the ones of the at least one type of processing supported by the receiving station are supported by the transmitting station, the evaluation arrangement configured to select at least one type of processing that is supported by both the transmitting station and the receiving station, the evaluation arrangement configured to activate the message generation arrangement so that the at least one selected type of processing is indicated in the first message, and the evaluation arrangement configured to activate a processing unit to process the data to be sent in accordance with the at least one selected type of processing.

58. (Previously Presented) The transmitting station according to claim 57, wherein the processing unit is configured to perform a predistortion.

59. (Previously Presented) The transmitting station according to claim 58, wherein the predistortion includes a joint predistortion.

60. (Previously Presented) The transmitting station according to claim 57, wherein the processing unit is configured to emit the signals to be sent over multiple antennas.

61. (Currently Amended) A method of transmitting a message element from a transmitting station to a receiving station, comprising the step of:

transmitting information with the message element regarding whether data to be sent is processed by ~~one of the transmitting station and~~ an additional transmitting station, the additional transmitting station being successively assigned to the receiving station to increase a reception quality at the receiving station in accordance with measures relating to a transmission channel between the receiving station and as least one of the transmitting station and the additional transmitting station.

62. (Previously Presented) The method according to claim 61, wherein the transmitting station includes a base station.

63. (Previously Presented) The method according to claim 61, wherein the receiving station includes a mobile station.

64. (Previously Presented) The method according to claim 61, wherein the method includes an exchange of signaling information.

65. (Previously Presented) The method according to claim 61, wherein information regarding which ones of at least one type of processing are used on the data to be sent is transmitted in the transmitting step with the message element.

66. (Previously Presented) A method of transmitting a message element from a transmitting station to a receiving station, comprising the step of:

transmitting information with the message element regarding one of which one of processing of signals to be sent and which ones of at least one type of processing of signals to be sent are supported by one of the transmitting station and an additional transmitting station successively assigned to the receiving station to increase a reception quality at the receiving station in accordance with measures relating to a transmission channel between the receiving station and at least one of the transmitting station and the additional transmitting station.

67. (Previously Presented) The method according to claim 66, wherein the transmitting station includes a base station.

68. (Previously Presented) The method according to claim 66, wherein the receiving station includes a mobile station.

69. (Previously Presented) The method according to claim 66, wherein the method includes an exchange of signaling information.

70. (Previously Presented) A method of transmitting a message element from a receiving station to a transmitting station, comprising the step of:

transmitting information with the message element regarding which types of processing of signals to be sent by one of the transmitting station and an additional transmitting station successively assigned to the receiving station are supported by the receiving station in a detection of the signals to be sent to increase a reception quality at the receiving station.

71. (Previously Presented) The method according to claim 70, wherein the receiving station includes a mobile station.

72. (Previously Presented) The method according to claim 70, wherein the transmitting station includes a mobile station.

73. (Currently Amended) ~~[[the]]~~ The method according to claim 70, wherein the method includes an exchange of signaling information.